

## **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listings of claims in the application.

1-52. (Canceled)

53. (Currently amended) A meter for use in combination with a test strip, said test strip including a working electrode, a counter electrode, and a pair of fill-detect electrodes, ~~and an auto-on conductor~~, said meter comprising:

a strip connector for receiving said test strip;

a processor;

a memory,

a plurality of machine instructions stored in said memory and executable by said processor for performing a test strip sequence;

a data acquisition system, controlled by said processor, for applying at least a first voltage between said working and counter electrodes and measuring any resulting current flowing between said working and counter electrodes, and for applying at least a second voltage between said fill-detect electrodes and measuring any resulting current flowing between said fill-detect electrodes, ~~and for measuring a voltage drop across auto-on conductor, when said test strip is inserted in said strip connector~~, said data acquisition system including at least ~~[[one]]~~ a first digital-to-analog converter, a second digital-to-analog converter, a multiplexer, and at least one analog-to-digital converter,

wherein the first and second digital-to-analog converters specify the first and second voltages for the working and counter electrodes and the fill-detect electrodes, respectively, and

wherein the multiplexer selects an input to the at least one analog-to-digital converter.

54. (Currently amended) The meter of claim 53, wherein said data acquisition system includes a wake-up circuit, said wake-up circuit detecting ~~[[said]]~~ an auto-on conductor when said test strip is inserted in said strip connector and responsively bringing said data acquisition system from a sleep mode into an active mode.

55. (Original) The meter of claim 53, wherein said test strip sequences comprises:

applying an assay voltage between said working and counter electrodes and making at least one measurement of the resulting current flowing between said working and counter electrodes.

56. (Currently amended) The meter of claim 55, wherein said test strip sequence further comprises:

detecting ~~[[said]]~~ a blood sample in ~~[[said]]~~ a sample chamber by applying a fill-detect voltage between said fill-detect electrodes and measuring a fill-detect current flowing between said fill-detect electrodes.

57. (Original) The meter of claim 56, wherein said test strip sequence further comprises:

detecting said blood sample at a first location in said sample chamber by applying a drop-detect voltage between said working and counter electrodes and measuring a drop-detect current flowing between said working and counter electrodes.

58. (New) The meter of claim 54, wherein the data acquisition system measures a voltage drop across said auto-on conductor.